

MONTHLY PROGRESS REPORT

ORONOGO-DUENWEG MINING BELT SITE - PHASE 10 JASPER COUNTY, MO

CONTRACT NO: EP-S7-15-06

Prepared for

U.S. Environmental Protection Agency – Region 7
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1.0 INTRODUCTION

EQM Inc. (EQM), under Contract No. EP-S7-15-06, with the United States Environmental Protection Agency (USEPA) prepares this Monthly Progress Report (MPR) to summarize work completed by EQM under Operable Unit 1 of the Oronogo-Duenweg Mining Belt Site - Phase 10 in Jasper County, MO.

EQM was contracted by USEPA to perform the general requirements, erosion control, clearing and grubbing, material removal, seeding and fertilizing on the Phase 10 sites.

This report is organized into sections that present the project schedule and summarize the work activities performed during the reporting period, problems encountered, proposed solutions, corrective actions taken, outstanding issues, changes to organization or method of operation, project costs, submittals, and work planned for the next reporting period.

2.0 PROJECT SCHEDULE STATUS

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
Base Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	38.6	38.8
Base Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	5.6	5.2
Base Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	7.9	4.7
Base Area 4	100%	100%	100%	100%	n/a	100%	100%	100%	9.1	8.8
Base Area 6	100%	100%	100%	100%	n/a	100%	100%	n/a	14.5	12.1
Base Area 8	100%	100%	100%	100%	n/a	100%	100%	100%	27.7	22.9
Base Area 11	100%	100%	n/a	100%	100%	100%	100%	100%	6	4.6
Base Area 13	100%	100%	100%	100%	n/a	100%	100%	100%	13.2	9.3
Base Area 14	100%	100%	100%	100%	n/a	100%	100%	n/a	3.9	3.1
Base Area 15	100%	100%	100%	100%	n/a	100%	100%	100%	30.8	11.8
Cen. City Frwrks. Repos.	100%	n/a	100%	100%	100%	100%	100%	n/a	0	1.9
Opt. 1 Area 1	100%	100%	100%	100%	n/a	100%	100%	100%	35.4	30.1
Opt. 1 Area 2	100%	100%	100%	100%	n/a	100%	100%	100%	19	14.7
Opt. 1 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	21.4	19
Opt. 1 Area 6	100%	100%	100%	100%	100%	100%	100%	100%	14.7	15.2
Opt. 1 Area 9	100%	100%	100%	100%	n/a	100%	100%	100%	4.6	5.2
Opt. 1 Area 15	100%	100%	100%	100%	n/a	100%	100%	n/a	1.9	2
Opt. 1 Area 20	100%	100%	100%	100%	n/a	100%	100%	n/a	3.6	7.8
Balestrin Repository	100%	n/a	100%	100%	100%	100%	100%	n/a	0	3.1
Opt. 2 Area 1	100%	100%	100%	100%	n/a	100%	0%	0%	61.64	42.83
Opt. 2 Area 3	100%	100%	100%	100%	n/a	100%	100%	100%	17.8	29.4

Area	Clearing & Grubbing	Waste Removal	Clay Cap	Drainage	Topsoil	Final Grading	Seeding	Fencing	Original LOD (Ac)	Final LOD (Ac)
Opt. 2 Area 5	100%	100%	100%	100%	n/a	100%	100%	n/a	8.4	7
Opt. 2 Area 6 - North	100%	100%	95%	30%	0%	0%	0%	0%	146.9	16.7
Opt. 2 Area 6 - West	100%	100%	100%	100%	n/a	95%	100%	0%	25.4	
Opt. 2 Area 7	100%	100%	100%	100%	n/a	100%	100%	100%		24.3
Opt. 2 Area 8	100%	100%	100%	100%	100%	100%	100%	100%	12.8	36.7
Opt. 2 Area 9	100%	100%	n/a	100%	100%	100%	100%	n/a	n/a	2.4
Gypstack Modification	100% complete								N/A	
MW-09	100%	100%	100%	100%	100%	100%	100%	100%	90.2	34.15
MW-14-01_02	100%	100%	100%	100%	n/a	100%	90%	100%	44.61	26.99
MW-18-01	100%	100%	100%	100%	100%	100%	100%	100%	56.96	39.93
MW-19-01_02	100%	100%	100%	100%	100%	95%	0%	0%	23.04	
MW-19-03	100%	100%	100%	100%	n/a	100%	100%	0%	2	9.48
Snowball Repository	100%	100%	75%	100%	0%	0%	0%	0%		
MW-26-01	100%	100%	100%	100%	n/a	100%	100%	100%	37.1	27.67
MW-26-04	100%	100%	100%	100%	n/a	100%	100%	100%	2.14	2.1
MW-26-05	100%	100%	100%	100%	100%	100%	100%	100%	8.97	10.39
CC Christian Church	100%	100%	100%	100%	100%	100%	0%	0%	N/A	

3.0 SUMMARY OF WORK ACTIVITIES PERFORMED THIS PERIOD

Mine Waste Remediation – Phase 10 (Option 2)								Monthly Totals																	
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Complete	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2018	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
2001	Erosion Control																								
2001AA	Sediment Fence	570	LF	570.0	100.0%						330.00							240							
2001AB	Rip Rap	915	Ton	915.0	100.0%			105.16	189.18	87.55	132.89							28.72	371.48						
2001AD	Stabilized Construction Entrance	6	Ea	6.0	100.0%		1.00	2.00			2.00				1										
2002	Clearing and Grubbing	160	Acre	116.3	72.5%							12.38			103.88									44.04	
2003	Earthwork																								
2003AA	Excavation/Disposal of Contaminated Waste	982,381	CY	982,379.0	100.0%																				
						43,533	51,692	102,023	96,506	86,979	92,806	99,045	82,753	62,577	48,231	83,855	80,185	32,787	19,407						
2003AB	Placement of material for Drainage	96,721	CY	96,474.0	99.7%		1,952	11,637	4,672	3,447		1,992	5,778	8,864		42,914	400	6,736	7,792		290	247			
2003AC	Grade Excavated Areas to final grade	160	Acre	116.3	72.5%							12.38			103.88									44.04	
2003AD	Import/Place Clay for all Repository Caps	48,810	CY	48,810.0	100.0%							1,898	8,102	20,438			3,408	5,812	8,604	548					
2003AE	Import/Place Topsoil for all Repository Caps	5,000	CY	5,000.0	100.0%														4,482	518					
2004	Seeding/Fertilizing																								
2004AA	Seeding/Fertilizing Repositories	1	Acre	1.3	98.5%				1.28																
2004AB	Seeding/Fertilizing (Fescue)	92	Acre	92.1	100.0%			13.81	2.39						75.9										
2005	Remove/Replace Fencing	5,370	LF	0.0	0.0%																			5370	
2006	Supply/Install 24" CMP Pipe	164	lf	164.0	100.0%							60.00			60				44						
2007	Supply/Install 36" CMP Pipe	55	lf	55.0	100.0%														55						

Mine Waste Remediation – Phase 10 (Option 3)																											
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr 2018	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov		
3001	Erosion Control																										
3001 AA	Sediment Fence	6,000	LF	2,150	36%	465							740	945		0	0	0	0	0							
3001 AB	Rip Rap	2,500	Ton	2,461	98%	71		15				1,527	63					157	15	33		161	391	28	0		
3001 AC	Stabilized Construction Entrance	6	Ea	4	67%	1	1		1		1									0							
3002	Clearing and Grubbing	300	Acre	239	80%						26			77						56				79	0		
3003	Earthwork																										
3003 AA	Excavation/Disposal of Contaminated Waste	792,184	CY	794,100	100%	8,997	49,050	79,812	68,922	57,501	92,911	64,500	72,648	159,384	29,538	29,970	30,539	33,921	16,407	0							
3003 AB	Placement of material for Drainage	100,000	CY	131,700	132%				4,352		33,549	22,715		38,379	384	5,563	13,969	2,659	0	10,130							
3003 AC	Grade Excavated Areas to final grade	300	Acre	239	80%						26			77						56				79	0		
3003 AD	Import/Place Clay for all Repository Caps	26,000	CY	41,143	158%		1,156		4,894		504	4,032	4,368		11,100	4,974	8,914	1,201	0	0							
3003 AE	Import/Place Topsoil for all Repository Caps	15,000	CY	8,067	54%		1,324				2,734		1,686	2,323													
3004	Seeding/Fertilizing																										
3004 AA	Seeding/Fertilizing Repositories	10	Acre	0	0%																						
3004 AB	Seeding/Fertilizing (Fescue)	290	Acre	166	57%			166																			
3005	Remove/Replace Fencing	10,000	LF	10,021	100%			1,070	3,485	1,505	31		2,815	1,115													
Mine Waste Remediation – Phase 10 (Option 3)																											

CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr 2018	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan, 2019	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov
3007	Supply/Install 36" CMP Pipe	100	lf	5	5%	5																			
3010	Rip Rap, 12"-36"	2,200	Ton	681	31%	112	88							481											
3011	Crushed Rock, 3" Clean	600	Ton	570	95%	87	27	28	56				83	196	81	0		13	0	0			0	0	0
3012	Gravel, 1"-3" Crushed w/fines	1,400	Ton	5,407	386%	200								788	14	0		2,577	1,278	43		117	122	129	139
3013	Powerline Relocation	1	LS	1	100%							1													
3014	Tire Disposal	40	Ton	45	112%					13				31											
3015	Powerline Relocation at Carl Junction	1	LS	1	100%																1				
3016	Demolition/Debris Disposal of R. Porter's Prop	1	LS	1	100%																1	0	0	0	0

Mine Waste Remediation – Phase 10 (Option 4)																			
CLIN	Description	Quantity	Unit	Quantity to Date	Percent Completed	Apr, 2019	May	Jun	Jul	Aug	Sep	Oct	Feb	Mar	Apr	May	June	July	Aug
4001	Erosion Control																		
4001AA	Sediment Fence	5,000.00	LF	2,716.0	54.3%				2,716										
4001AB	Rip Rap	2,000.00	Ton	27.6	1.4%														27.59
4001AC	Stabilized Construction Entrance	4.00	Ea	4.0	100.0%	1		1		1	1								
4002	Clearing and Grubbing	200.00	Acre	23.5	11.7%								23						
4003	Earthwork																		
4003AA	Excavation/Disposal of Contaminated Waste	500,000.00	CY	553,761.0	110.8%			44,430	62,019	54,783	80,298	114,608	16,892	20,061	46,597	-	10,530	7,703	29,952
4003AB	Placement of material for Drainage	100,000.00	CY	124,070.0	124.1%			36,365	360	2,748	2,958	17,200	6,374	2,535	2,340	-	128	45,515	3,412
4003AC	Grade Excavated Areas to final grade	300.00	Acre	23.5	7.8%								9				14	-	-
4003AD	Import/Place Clay for all Repository Caps	120,000.00	CY	107,625.0	89.7%	4,839		619	3,682	6,146	7,573	5,400	3,611	1,344	-	-	-	23,907	21,790
4003AE	Import/Place Topsoil for all Repository Caps	60,000.00	CY	12,755.0	21.3%					36		2,271	356				96.00	64.00	7,692.00
3004	Seeding/Fertilizing																		
4004AA	Seeding/Fertilizing Repositories	70.00	Acre	3.6	5.1%											3.59	-	-	-
4004AB	Seeding/Fertilizing (Fescue)	200.00	Acre	274.6	137.3%				46				-			91.37	16.20	-	-
4005	Remove/Replace Fencing	10,000.00	LF	15,475.0	154.8%				3,476			3,469	-		3,450.00	-	-	-	-
4006	Supply/Install 24" CMP Pipe	200.00	lf	40.0	20.0%						40								
4007	Supply/Install 36" CMP Pipe	100.00	lf	0.0	0.0%														
4010	Rip Rap, 12"-36"	200.00	ton	2,340.2	1170.1%	680	475	85			123	138	191		249.24	-	-	29.93	99.29
4011	Crushed Rock, 3" Clean	200.00	ton	1,185.4	592.7%	112	296	32		418	168		160						
4012	Gravel, 1-3" Crushed w/fines	200.00	ton	1,831.0	915.5%								-				57.90	152.42	1,442.87
4013	Tire Disposal	40.00	ton	2.6	6.6%													2.62	-
4014	Phone Line Relocation	1.00	EA	1.0	100.0%											0.50	0.50	-	-
4015	Haul & Place Wood Chips for Revegetation	1.00	EA	0.0	0.0%											-	-	-	-
4016	Gypstack Repairs	1.00	EA	1.0	100.0%						0.06	0.15	0.25			-	-	-	-
4017	Power Line Relocation, Area 2-6 north of Dogwood LN	1.00	EA	1.0	100.0%											0.50	0.50	-	-
4018	Box Culvert at Dogwood Lane	1.00	EA	0.9	90.0%											-	-	0.50	0.40

4.0 PROBLEMS ENCOUNTERED / RFI's SUBMITTED

- No RFIs were submitted this reporting period. See RFI Log Attachment A
- EQM, Inc. developed Health & Safety Amendment & AHA specific to procedures mitigating the threat posed by the Coronavirus. EQM has implemented these procedures into everyday operations and will continue to do so for the foreseeable future.
- On August 5th, 2020, Craig Hoby as Project Manager, temporarily suspended all field work after being notified that two members of EQM's field management team were experiencing symptoms consistent with COVID-19. EQM sent the entire field crew for testing on the afternoon of the August 5th at the local occupational medical clinic – all symptomatic and positive-testing employees were isolated and began a self-quarantine period in accordance with our plans and company protocol. Craig Hoby notified USEPA COR & CO on August 5th of the need for shutdown and coordinated a resumption of work since the majority of the field crew tested negative and had no symptoms.

EQM resumed field work on August 17, with Craig Hoby on-site. All symptomatic and positive-testing employees returned to work after clearing our protocol.

5.0 PROPOSED SOLUTIONS

- Nothing at this time.

6.0 CORRECTIVE ACTIONS

- Nothing at this time.

7.0 OUTSTANDING ISSUES

- On August 17, 2020, USEPA COR provided authorization for EQM to invoice the incentive, Option Period 3 Incentive 1 – Commitment to the Local Community.
- EQM's request for a contract modification for the differing site conditions, regarding additional aggregates and fencing CLINs, dated 23 July, 2020, is still pending.
- EQM submitted a proposed capacity swap for the residual funds from Option Period 3 into Option Period 4. USEPA will be addressing in the next couple of weeks.

8.0 CHANGES TO ORGANIZATION OR METHOD OF OPERATION

- None.

9.0 MEETINGS AND CALLS

- EQM and USEPA corresponded via e-mail and telephone conversations regarding the contract.

10.0 SUBMITTALS

- A review of current planning documents identified a need for revision/updates. EQM submitted a final revision of the SAP, which includes the FSP & QAPP, via e-mail on 22 Feb 2018 in PDF format. EQM received review comments from USEPA on 10 Oct 2018 for the FSP & QAPP and submitted a revised document to USEPA on 15 Jan 2019. On Feb 4, 2019, EQM provided USEPA with a revised signature page including a signature block for the COR, Steve Kemp.

11.0 PROJECT COSTS

The following project costs are estimated for this reporting period:

Base Contract Value	\$3,685,978.44		
Prior Period Cumulative Costs	\$3,685,978.44	Prior Period Cumulative % Complete	100%
Current Period Costs	\$0.00	Current Period % Complete+	0.0%
Current Cumulative Costs	\$3,685,978.44	Current Cumulative % Complete	100%

Option 1 Contract Value	\$5,977,289.12		
Prior Period Cumulative Costs	\$5,973,773.30	Prior Period Cumulative % Complete	99.9
Current Period Costs	\$0.00	Current Period % Complete	0%
Current Cumulative Costs	\$5,973,773.30	Current Cumulative % Complete	99.9%

Option 2 Contract Value	\$7,767,990.34		
Prior Period Cumulative Costs	\$7,720,026.80	Prior Period Cumulative % Complete	99.4%
Current Period Costs	\$0.00	Current Period % Complete	0.0%
Current Cumulative Costs	\$7,767,990.34	Current Cumulative % Complete	100%

Option 3 Contract Value	\$7,256,990.37	w/ incentives	
Prior Period Cumulative Costs	\$7,016,748.58	Prior Period Cumulative % Complete	96.7%
Current Period Costs	\$71,146.96	Current Period % Complete	1.0%
Current Cumulative Costs	\$7,087,895.54	Current Cumulative % Complete	97.7%

Option 4 Contract Value	\$9,179,500.20	w/o incentives	
Prior Period Cumulative Costs	\$7,422,291.17	Prior Period Cumulative % Complete	80.9%
Current Period Costs	\$818,195.06	Current Period % Complete	8.9%
Current Cumulative Costs	\$8,240,486.23	Current Cumulative % Complete	90.0%

12.0 WEATHER

EQM experienced delays associated with several rain-outs, wet field conditions and/or community events:

Week 1: 8-1 to 8-2

Saturday 1st – Shutdown (Rain)

Sunday 2nd – Shutdown (Rain)

Week 2: 8-3 to 8-9

Wednesday 5th – Early Shutdown (COVID testing all crew members)

Thursday 6th – Shutdown (COVID-19 Quarantine)

Friday 7th – Shutdown (COVID-19 Quarantine)

Saturday 8th – Shutdown (COVID-19 Quarantine)

Sunday 9th – Shutdown (COVID-19 Quarantine)

Week 3: 8-10 to 8-16

Monday 10th – Shutdown (COVID-19 Quarantine)

Tuesday 11th – Shutdown (COVID-19 Quarantine)

Wednesday 12th – Shutdown (COVID-19 Quarantine)

Thursday 13th – Shutdown (COVID-19 Quarantine)

Friday 14th – Shutdown (COVID-19 Quarantine)

Saturday 15th – Shutdown (COVID-19 Quarantine)

Sunday 16th – Shutdown (COVID-19 Quarantine)

Week 4: 8-17 to 8-23

No adverse weather or events

Week 5: 8-23 to 8-31

Saturday 29th – Early Shutdown (Rain, 0.75”)

Sunday 30th – Shutdown (Light rain most of the day)

Monday 31st – Shutdown (Rain in am hours)

13.0 30-DAY LOOK AHEAD

Work scheduled for September includes the following:

- Replace ~280’ fence at Central City Christian Church and seed
- Continue capping at Snowball
- Continue watering to promote growth of re-vegetation of excavated areas
- Continue progressing through Punch list items
- Begin work for proper drainage in Area 2-6 North Powerline
- Finish McDonald Detention
- Begin seeding areas that are ready
- Perform inspection & maintenance activities

ATTACHMENT A
REQUEST FOR INFORMATION (RFI) REGISTRY

**ORONOGO-DUENWEG MINING BELT SITE – Phase 10
REQUEST FOR INFORMATION REGISTRY**

RFI #	Item Description	Date Sub Submitted To EQM	Date EQM Submitted To USEPA CO	Date CO Returned Response To EQM	Action Taken

ATTACHMENT B
SUBMITTAL REGISTRY

**ORONOGO-DUENWEG MINING BELT SITE Phase 10
SUBMITTAL REGISTRY**

Section Number	Section Title	Submittal #	Item Type	Date Sub Submitted To EQM	Date EQM Submitted To USEPA CO	Date CO Return Submittal To EQM	Approved/ Disapproved
5	Deliverables	1	Sampling and Analysis Plan	NA	11/18/15	11/2015	Approved via email
			Sampling and Analysis Plan, Rev 1	NA	2/22/18	10/10/18	Pending; see section 10
5	Deliverables	2	Chemical Quality Control Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	3	Quality Assurance Project Plan	NA	11/18/15	11/2015	Approved via email
			Quality Assurance Project Plan, Rev 1	NA	1/15/19		Pending
5	Deliverables	4	Project Management Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	5	Health and Safety Plan	NA	11/18/15	11/2015	Approved via email
5	Deliverables	5 - Amended	Health and Safety Plan, Amended, Mar 2020	NA	3/25/20		Pending

ATTACHMENT C
SITE FIGURES

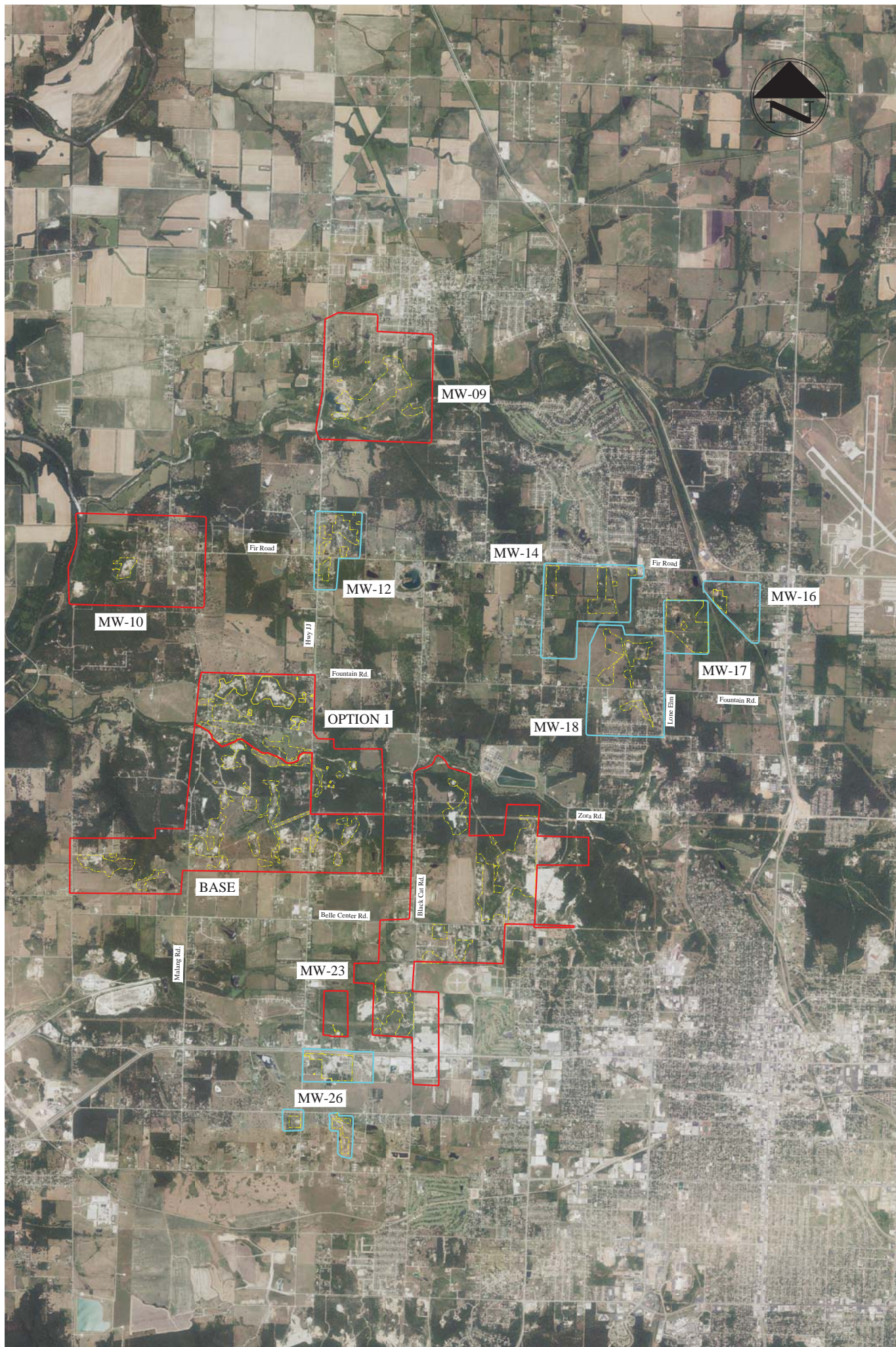






2-8







MW-12





MW-26

MW-26

MW-26





MW-14

MW-16

MW-17

MW-18



ATTACHMENT D
PHOTOGRAPHS



Figure 1 – Placement of topsoil at repository at MW19-1



Figure 2 – Sediment removal from pond, located in northeast corner of Snowball Repository



Figure 3 – Clay Capping at Snowball Respository